

PART I Authorization to Operate

- A. The permittee is authorized to operate a Class V Injection Well, at the facility described in the permit application and in the cover page of this permit, in accordance with the provisions set forth in this permit. In the case of this permit, the unlined borrow pit is defined as the injection well.
- B. Only the wastewater described in the original permit application or any subsequent permit modification issued by the Alabama Department of Environmental Management (ADEM) shall be injected.
- C. This permit and the authorization to inject shall remain in effect until the expiration date as stated on the cover page of this permit. If the permittee desires to continue injection past the expiration date of this permit, the permittee shall request a permit reissuance at least 180 days prior to expiration of this permit.

PART II Construction Requirements

- A. Injection Well Requirements
 - 1. The permittee shall inject only wastewater that has been treated by passing through the lined aeration ponds and the lined wetland ponds in accordance with the plans submitted to the Department.
 - 2. The permittee shall maintain a means of sampling the wastewater being injected after treatment and prior to injection, plans for which were submitted with the original permit application.
- B. Monitoring Well Requirements
 - 1. The permittee shall maintain three (3) monitoring wells, MW-01, MW-02 and MW-03, down gradient of the injection well for the purpose of monitoring groundwater quality.
 - 2. Each monitoring well shall include the following.
 - a) The monitoring well shall be screened in the uppermost saturated zone. The well screen shall be of sufficient length to account for seasonal fluctuations in the water table and affects of the injection field.
 - b) The annulus around each well casing above the well screen shall be sealed with bentonite to prevent the passage of surface water or injection field water.
 - c) The surface installation shall include a concrete protective pad around the base of the well, a metal protective casing, and a locking cap.
 - 3. All surface water shall be routed away from the monitoring well's surface installation.

4. The monitoring well shall be maintained in accordance with the plans submitted to ADEM.

C. Modifications

Approval by ADEM shall be obtained prior to modification of any injection well or supporting surface. Modification shall mean any action that will change the configuration of the well beneath the surface, the methods of monitoring injection, or will result in injection of a fluid not specifically authorized by this permit.

PART III Monitoring and Operating Requirements

A. Injection Fluid

1. The permittee shall not inject any substance that is defined as hazardous or toxic by Federal or State laws or regulations or any substance not identified in the application for this permit. The proposed use of substances other than those identified in the permit application must be reviewed and approved by ADEM prior to use.
2. The permittee shall monitor the fluid to be injected as specified in Appendix A of this permit.
3. In the event that no discharge occurs during the quarterly monitoring period, the permittee shall collect the sample from the lined holding pond and analyze for the parameters listed in Appendix A.
4. In the event that more than one discharge occurs during the quarterly monitoring period, the permittee shall collect the sample for each additional discharge and analyze for the parameters listed in Appendix A.
5. The permittee shall not exceed the limits established in Appendix A of this permit.
6. ADEM may change the sampling requirements if the sampling data indicates a need to do so.

B. Monitoring Wells

1. The permittee shall sample all three (3) monitoring wells in accordance with Appendix B of this permit.
2. The permittee shall not exceed the limits as established in Appendix B of this permit.
3. The permittee shall purge the monitoring wells prior to sampling.
4. ADEM may change the sampling requirements if the sampling data indicates a need to do so.

C. Operation

1. The permittee shall adopt the following best management practices:
 - a) Inspect equipment, tanks, and chemical containers regularly for leaks.
 - b) Maintain aeration ponds and wetland ponds to insure they are working properly.

- c) Comply with Federal, State, and local solid and liquid waste disposal regulations.

PART IV Records, Reports, & Submittals

A. Records

1. The permittee shall record the information listed below for all monitoring activities:
 - a) The date, exact place, and time of sampling or sampling measurement(s);
 - b) The name of individual(s) who perform the sampling or measurement(s);
 - c) The date(s) analyses were performed;
 - d) The name of the individual(s) who performed the analyses;
 - e) The analytical or technical methods used;
 - f) The results of each analysis performed; and
 - g) The completed chain-of-custody forms for all samples collected.
2. The permittee shall retain all records concerning the data used to complete the permit application, the operation of the wells, and the nature and composition of pollutants injected; to include records of the calibration of instruments, meters and gauges, quality control records, and recordings from continuous monitoring instrumentation for the until at least three years after the closure of well(s).
3. When requested by ADEM, the permittee shall deliver to ADEM copies of any of the records maintained in accordance with this permit.

B. Reports

1. **Within 180 days upon the effective date of this permit, the permittee must enroll and participate in the Department's web-based electronic environmental (E2) DMR reporting system.** Once the permittee is enrolled in the E2 DMR system, the permittee must utilize the system for the submittal of DMRs. The Permittee Participation Package may be downloaded online at <https://e2.adem.alabama.gov/npdes>. If the E2 DMR system is down due to technical problems originating with the Department's system, the permittee is not relieved of the obligation to submit DMR data by the required submittal date via faxing, e-mailing, mailing, or hand-delivery of data such that they are received by the required reporting date.
2. The permittee shall report to ADEM any of the following:
 - a) Any planned action which will change the use of the injection well, will result in injection of a fluid different from that authorized by this permit, will change the method of operations of any injection well, or will change the method of the monitoring of well operations or injected fluids. No such changes shall be implemented unless or until a permit modification has been received.
 - b) Any planned transfer of ownership of all or part of the permitted facility.

- c) Any relevant facts of which the permittee becomes aware which should have been submitted in a permit application and any corrections to data previously submitted in a permit application.
- 3. Other Submittals
Studies, engineering reports, plans and specifications, plugging and abandonment plans, logging reports, and other technical documents submitted to comply with this permit shall be prepared by or under the supervision of qualified persons defined by Underground Injection Control (UIC) Regulations of ADEM.

PART V Plugging and Abandonment

The permittee shall perform any abandonment and closure actions that may be required by ADEM to remove a threat to groundwater quality or to the health of persons, which is caused by the injection activity.

PART VI Permit Modification, Revocation, Suspension, and Termination

- A. ADEM may impose emergency additional conditions to this permit when necessary to protect waters of the state from pollution. These conditions may include suspension of the permit to inject. Any such condition shall remain in effect until the permit is modified, revoked, suspended or terminated in accordance with the UIC Regulations of ADEM.
- B. Non-emergency permit modification, revocation, suspension, and termination actions shall be accomplished in accordance with ADEM Administrative Rule 335-6-8.

PART VII General Provisions

- A. The permittee shall comply with all provisions of the UIC Regulations of ADEM and shall comply with all provisions of this permit and shall reduce or halt injection if needed to maintain compliance with the permit and regulations.
- B. The permittee shall comply with all applicable Federal and State hazardous waste management regulations.
- C. The permittee shall allow members of the ADEM staff to:
 - 1. Access property and records of the permittee for purposes of inspection.
 - 2. Collect samples of the injected fluids, process and wastewater streams associated with the permitted injection wells.
 - 3. Collect samples from monitoring wells.
 - 4. Obtain copies of records upon request.
- D. The permittee shall immediately take all reasonable steps to minimize or correct any adverse environmental impact resulting from the operation of the permitted injection wells.
- E. This permit does not convey any property rights of any sort, or any exclusive privilege.
- F. The filing of a request by the permittee for a permit modification, revocation, and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.

- G. Any noncompliance with this permit constitutes a violation of the Alabama Water Pollution Control Act (AWPCA) and/or the UIC regulations and is grounds for enforcement action such as permit termination, revocation, modification; or denial of a permit renewal application.
- H. Injection to waters of the state, which in this case is groundwater, in accordance with this permit shall not result in the exceedance of a Maximum Contaminant Level (MCL) as established by the Environmental Protection Agency. Injection to groundwater, in accordance with this permit shall not result in a violation of a surface water quality standard.
- I. All provisions of ADEM Code Rule 335-6-8.12 are incorporated as terms and conditions of this permit by reference.

APPENDIX A

EFFLUENT CHARACTERISTICS	UNITS	DISCHARGE LIMITS	MONITORING REQUIREMENTS	
			FREQUENCY	SAMPLE TYPE
Nitrate (as N)	mg/l	Report	Quarterly	Grab
pH	S.U.	Report	Quarterly	Grab
Specific Conductance	ohms/cm	Report	Quarterly	Grab
Antimony	ug/l	Report	Quarterly	Grab
Arsenic	ug/l	Report	Quarterly	Grab
Barium	ug/l	Report	Quarterly	Grab
Beryllium	ug/l	Report	Quarterly	Grab
Cadmium	ug/l	Report	Quarterly	Grab
Chromium	ug/l	Report	Quarterly	Grab
Cobalt	ug/l	Report	Quarterly	Grab
Copper	ug/l	Report	Quarterly	Grab
Lead	ug/l	Report	Quarterly	Grab
Mercury	ug/l	Report	Quarterly	Grab
Nickel	ug/l	Report	Quarterly	Grab
Selenium	ug/l	Report	Quarterly	Grab
Silver	ug/l	Report	Quarterly	Grab
Thallium	ug/l	Report	Quarterly	Grab
Vanadium	ug/l	Report	Quarterly	Grab
Zinc	ug/l	Report	Quarterly	Grab
Acetone	ug/l	Report	Quarterly	Grab
Acrylonitrile	ug/l	Report	Quarterly	Grab
Benzene	ug/l	Report	Quarterly	Grab
Bromochloromethane	ug/l	Report	Quarterly	Grab
Bromodichloromethane	ug/l	Report	Quarterly	Grab
Bromoform	ug/l	Report	Quarterly	Grab
Carbon disulfide	ug/l	Report	Quarterly	Grab
Carbon tetrachloride	ug/l	Report	Quarterly	Grab
Chlorobenzene	ug/l	Report	Quarterly	Grab
Chloroethane	ug/l	Report	Quarterly	Grab
Chloroform	ug/l	Report	Quarterly	Grab
Dibromochloromethane	ug/l	Report	Quarterly	Grab

APPENDIX A (Continued)

EFFLUENT CHARACTERISTICS	<u>DISCHARGE LIMITS</u>		<u>MONITORING REQUIREMENTS</u>	
			FREQUENCY	SAMPLE TYPE
1,2-Dibromo-3-chloropropane	ug/l	Report	Quarterly	Grab
1,2-Dibromoethane	ug/l	Report	Quarterly	Grab
o-Dichlorobenzene	ug/l	Report	Quarterly	Grab
para-Dichlorobenzene	ug/l	Report	Quarterly	Grab
trans-1,4-Dichloro-2-butene	ug/l	Report	Quarterly	Grab
1,1-Dichloroethane	ug/l	Report	Quarterly	Grab
1,2-dichloroethane	ug/l	Report	Quarterly	Grab
1,1-Dichloroethylene	ug/l	Report	Quarterly	Grab
cis-1,2-Dichloroethylene	ug/l	Report	Quarterly	Grab
trans-1,2-Dichloroethylene	ug/l	Report	Quarterly	Grab
1,2-Dichloropropane	ug/l	Report	Quarterly	Grab
cis-1,3-dichloropropene	ug/l	Report	Quarterly	Grab
trans-1,3-Dichloropropene	ug/l	Report	Quarterly	Grab
Ethylbenzene	ug/l	Report	Quarterly	Grab
2-Hexanone	ug/l	Report	Quarterly	Grab
Methyl bromide	ug/l	Report	Quarterly	Grab
Methyl chloride	ug/l	Report	Quarterly	Grab
Methylene bromide	ug/l	Report	Quarterly	Grab
Methylene chloride	ug/l	Report	Quarterly	Grab
Methyl ethyl ketone	ug/l	Report	Quarterly	Grab
Methyl iodide	ug/l	Report	Quarterly	Grab
4-Methyl-2-pentanone	ug/l	Report	Quarterly	Grab
Styrene	ug/l	Report	Quarterly	Grab
1,1,1,2-Tetrachloroethane	ug/l	Report	Quarterly	Grab
1,1,2,2-Tetrachloroethane	ug/l	Report	Quarterly	Grab
Tetrachloroethylene	ug/l	Report	Quarterly	Grab
Toluene	ug/l	Report	Quarterly	Grab
1,1,1-Trichloroethane	ug/l	Report	Quarterly	Grab
1,1,2-Trichloroethane	ug/l	Report	Quarterly	Grab
Trichloroethylene	ug/l	Report	Quarterly	Grab

APPENDIX A (Continued)

<u>EFFLUENT CHARACTERISTICS</u>	<u>UNITS</u>	<u>DISCHARGE LIMITS</u>	<u>MONITORING REQUIREMENTS</u>	
			<u>FREQUENCY</u>	<u>SAMPLE TYPE</u>
Trichlorofluoromethane	ug/l	Report	Quarterly	Grab
1,2,3-Trichloropropane	ug/l	Report	Quarterly	Grab
Vinyl acetate	ug/l	Report	Quarterly	Grab
Vinyl chloride	ug/l	Report	Quarterly	Grab
Xylenes	ug/l	Report	Quarterly	Grab

APPENDIX B

<u>GROUNDWATER CHARACTERISTICS</u>	<u>UNITS</u>	<u>DISCHARGE LIMITS</u>	<u>MONITORING REQUIREMENTS</u>	
			<u>FREQUENCY</u>	<u>SAMPLE TYPE</u>
Nitrate (as N)	mg/l	10	Quarterly	Grab
pH	S.U.	Report	Quarterly	Grab
Specific Conductance	ohms/cm	Report	Quarterly	Grab
Antimony	ug/l	6	Quarterly	Grab
Arsenic	ug/l	10	Quarterly	Grab
Barium	ug/l	2,000	Quarterly	Grab
Beryllium	ug/l	4	Quarterly	Grab
Cadmium	ug/l	5	Quarterly	Grab
Chromium	ug/l	100	Quarterly	Grab
Cobalt	ug/l	Report	Quarterly	Grab
Copper	ug/l	1,300	Quarterly	Grab
Lead	ug/l	15	Quarterly	Grab
Mercury	ug/l	2	Quarterly	Grab
Nickel	ug/l	100	Quarterly	Grab
Selenium	ug/l	50	Quarterly	Grab
Silver	ug/l	Report	Quarterly	Grab
Thallium	ug/l	2	Quarterly	Grab
Vanadium	ug/l	Report	Quarterly	Grab
Zinc	ug/l	Report	Quarterly	Grab
Acetone	ug/l	Report	Quarterly	Grab
Acrylonitrile	ug/l	Report	Quarterly	Grab
Benzene	ug/l	5	Quarterly	Grab
Bromochloromethane	ug/l	Report	Quarterly	Grab
Bromodichloromethane	ug/l	Report	Quarterly	Grab
Bromoform	ug/l	Report	Quarterly	Grab
Carbon disulfide	ug/l	Report	Quarterly	Grab
Carbon tetrachloride	ug/l	5	Quarterly	Grab
Chlorobenzene	ug/l	Report	Quarterly	Grab
Chloroethane	ug/l	Report	Quarterly	Grab
Chloroform	ug/l	Report	Quarterly	Grab
Dibromochloromethane	ug/l	Report	Quarterly	Grab

APPENDIX B (Continued)

GROUNDWATER CHARACTERISTICS	UNITS	DISCHARGE LIMITS	MONITORING REQUIREMENTS	
			FREQUENCY	SAMPLE TYPE
1,2-Dibromo-3-chloropropane	ug/l	0.2	Quarterly	Grab
1,2-Dibromoethane	ug/l	Report	Quarterly	Grab
o-Dichlorobenzene	ug/l	600	Quarterly	Grab
para-Dichlorobenzene	ug/l	75	Quarterly	Grab
trans-1,4-Dichloro-2-butene	ug/l	Report	Quarterly	Grab
1,1-Dichloroethane	ug/l	Report	Quarterly	Grab
1,2-dichloroethane	ug/l	5	Quarterly	Grab
1,1-Dichloroethylene	ug/l	7	Quarterly	Grab
cis-1,2-Dichloroethylene	ug/l	70	Quarterly	Grab
trans-1,2-Dichloroethylene	ug/l	100	Quarterly	Grab
1,2-Dichloropropane	ug/l	5	Quarterly	Grab
cis-1,3-dichloropropene	ug/l	Report	Quarterly	Grab
trans-1,3-Dichloropropene	ug/l	Report	Quarterly	Grab
Ethylbenzene	ug/l	700	Quarterly	Grab
2-Hexanone	ug/l	Report	Quarterly	Grab
Methyl bromide	ug/l	Report	Quarterly	Grab
Methyl chloride	ug/l	Report	Quarterly	Grab
Methylene bromide	ug/l	Report	Quarterly	Grab
Methylene chloride	ug/l	Report	Quarterly	Grab
Methyl ethyl ketone	ug/l	Report	Quarterly	Grab
Methyl iodide	ug/l	Report	Quarterly	Grab
4-Methyl-2-pentanone	ug/l	Report	Quarterly	Grab
Styrene	ug/l	100	Quarterly	Grab
1,1,1,2-Tetrachloroethane	ug/l	Report	Quarterly	Grab
1,1,2,2-Tetrachloroethane	ug/l	Report	Quarterly	Grab
Tetrachloroethylene	ug/l	5	Quarterly	Grab
Toluene	ug/l	1,000	Quarterly	Grab
1,1,1-Trichloroethane	ug/l	200	Quarterly	Grab
1,1,2-Trichloroethane	ug/l	5	Quarterly	Grab
Trichloroethylene	ug/l	5	Quarterly	Grab

APPENDIX B (Continued)

<u>GROUNDWATER CHARACTERISTICS</u>	<u>UNITS</u>	<u>DISCHARGE LIMITS</u>	<u>MONITORING REQUIREMENTS</u>	
			<u>FREQUENCY</u>	<u>SAMPLE TYPE</u>
Trichlorofluoromethane	ug/l	Report	Quarterly	Grab
1,2,3-Trichloropropane	ug/l	Report	Quarterly	Grab
Vinyl acetate	ug/l	Report	Quarterly	Grab
Vinyl chloride	ug/l	2	Quarterly	Grab
Xylenes	ug/l	10,000	Quarterly	Grab

ADEM Permit Rationale

Date: January 10, 2019

Prepared by: Jessica Spence

Responsible Official: Terri L. Graham

Permittee Name: Baldwin County Commission
312 Courthouse Square Suite 12
Bay Minette, AL 36507

Facility Name: Magnolia Sanitary Landfill

Location: 15140 County Road 49

Summerdale
Baldwin County, Alabama
Lat:N 30.443274/Long:W -87.773682
Town 7S, Range 3E, Section 16

UIC Permit Number ALSI9902554

Draft Permit is: Reissuance due to expiration

Injection Description: Wastewater resulting from the operation of a landfill leachate treatment system

Discussion: Standard permit drafted.

1. No hazardous injection
2. Sampling point required
3. Discharge must be sampled quarterly
4. Results must be submitted in a timely manner
5. Three (3) monitoring wells must be maintained and sampled
6. BMPs included in permit
7. E2 DMR participation requirement
8. Nitrate included in Appendix A